STATE OF UTAH
NATURAL RESOURCES & ENERGY
Oil, Gas & Mining

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Scott M. Matheson, Governor
Temple A. Reynolds, Executive Director
Cleon B. Feight, Division Director

MEMORANDUM

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TO: The Board of Oil, Gas and Mining

FROM: Cyril J. Young, Engineering Geologist

SUBJECT: Tentative Approval
Kolt Mining Company
Milford Project
ACT/001/006
Beaver County, Utah

DATE: March 17, 1983

The Diviion of Oil, Gas and Mining staff have reviewed the Mining and Reclamation Plan (MRP) submitted by Kolt Mining Company for the Milford Project. At this time the Division still has some minor concerns but nothing which is worth holding up the permitting process to resolve. The staff recommends tentative approval for the project and the amount of surety at this time. However, final approval will not be granted until all points of contention are resolved. An Executive Summary is attached for your review and information. The bond estimate and form of surety have not been finalized at this moment.

CJY/lm

attachment

EXECUTIVE SUMMARY

Kolt Mining Company

Milford Project
ACT/001/006, Beaver County, Utah
Section 17, 18, 19 and 20, Township 28 S., Range 9 W.

Background Information:

Kolt Mining Company of Midvale, Utah, has submitted a Mining and Reclamation Plan (MRP) for the Milford Project. The applicant proposes to develop and operate an open pit mine, with an attendant milling and refining facility east of Milford, Utah. The intent is to remove the overburden, extract the mineable ore, haul the ore to the milling site for crushing, and separate the noble metals from the ore through a cyanidation process.

Location

The proposed operation will be located on the west slope of the Mineral Range Mountains approximately 7.5 miles east of Milford in Beaver County. The mine permit area includes portions of Sections 17, 18, 19 and 20, Township 28 S., Range 9 W., S.L.M. There are no transmission lines, intact buildings or surface facilities present within the proposed permit area.

Geology

The area has three distinct geological features and three different ore bodies. The area to be mined is dominated by an oblong knoll which trends northwest to southeast. It is composed of a dolomitic limestone roof pendant which has a magnitite vein showing mineralized halo zones on both sides of the vein. The dolomite shows features readily comparable to the Cambrian Bluebird dolomite. It is underlain and altered extensively at the contact by a tertiary granite intrusion. The third feature is a large dolerite dike which strikes north to south and lies approximately one-half mile east of the project area. The major ore extraction will be from the magnetite vein and the halo zones in the altered dolomite.

Soils:

Two principal soil series overlie the area of the proposed mine and mill complex. The Sheeprock series consists of deep, gently sloping to steep, somewhat excessively drained soils on the hills. They are formed in alluvium derived principally from acid igneous material. The Blackett series consists of deep, moderately sloping to steep (3 to 20% slopes) well drained soils on outwash and alluvial fans. These soils are formed in alluvium derived from acid and intermediate igneous rock.

Hydrology:

Climatic conditions of the area can be described as semi-arid, cold; that is, it is a region where evaporation exceeds the available precipitation. No perennial or intermittent streams are present within the project area. It appears that flows percolate into the alluvial strata east of the minesite and are diverted south around the mine/mill site by the dolerite dike. Drilling has shown that no active ground-water aquifer systems are present within 1000 feet of the surface. Project process water will come from the Rock Corral Springs located 3 miles northeast of the mill site.

Ecology

The native plant community conists of an open stand of juniper and a few pinyon pine with an understory of big sagebrush, black sagebrush, grasses and forbs. It consists of about 5 to 10 percent grasses; 2 to 5 percent forbs; and 75 to 85 percent Juniper and Pinyon Pine. No endangered or threatened species were encountered on the study area. Only one plant encountered was listed as a primary selenium indicator.

Wildlife

A portion of the study area is mule deer winter range but most of the project site is considered summer and transition range. Mammalian predators reported in the area include mountain lion, bobcat, coyote, red fox, badger and long-tailed weasel. The only threatened or endangered species sighted in the area is the bald eagle. Bald eagle winter roosts occur within three miles near the Rock Corral Springs area.

Structures and Facilities

The mine complex will include the following components, the open mine pit, overburden disposal area, low grade ore stockpile and the attendant haul roads. The mill complex will include the coarse ore stockpile, crushing facility, processing plant, electrical substation, administration buildings, service facilities and tailings dam and impoundment.

Mining and Reclamation Plan:

During Operations:

1. Topsoil will be removed and stockpiled so as to protect it from wind and water erosion and seeded during the first fall seeding season.

2. Initially, overburden removed during the first year of mine development will be used to build the tailings dam and haul roads. Remaining overburden will be placed in the waste disposal area.

3. Ore will be mined in 10-foot benches, low grade ore being stored for future processing and higher grade ore being hauled to the crusher. Crushed ore will be processed and refined through a cyanidation process to separate the noble metals from the ore.

4. Tailings from the mill will be collected in a settling pond from which process water will be recycled for future uses. Initially the settling pond will be constructed to hold two years of tailings and expanded as more storage capacity is needed. The tailings dam will be seeded and stabilized during construction.

After Operations;

1. Surfaces of the mill area and the waste rock dumping area will be regraded to the existing topography.

2. The mine pit wall will be reduces to a 1:1 slope during mining, thus no highwalls will be left.

3. Topsoil will be replaced as evenly as possible and left in a cobbly or cloddy condition to help conserve soil moisture.

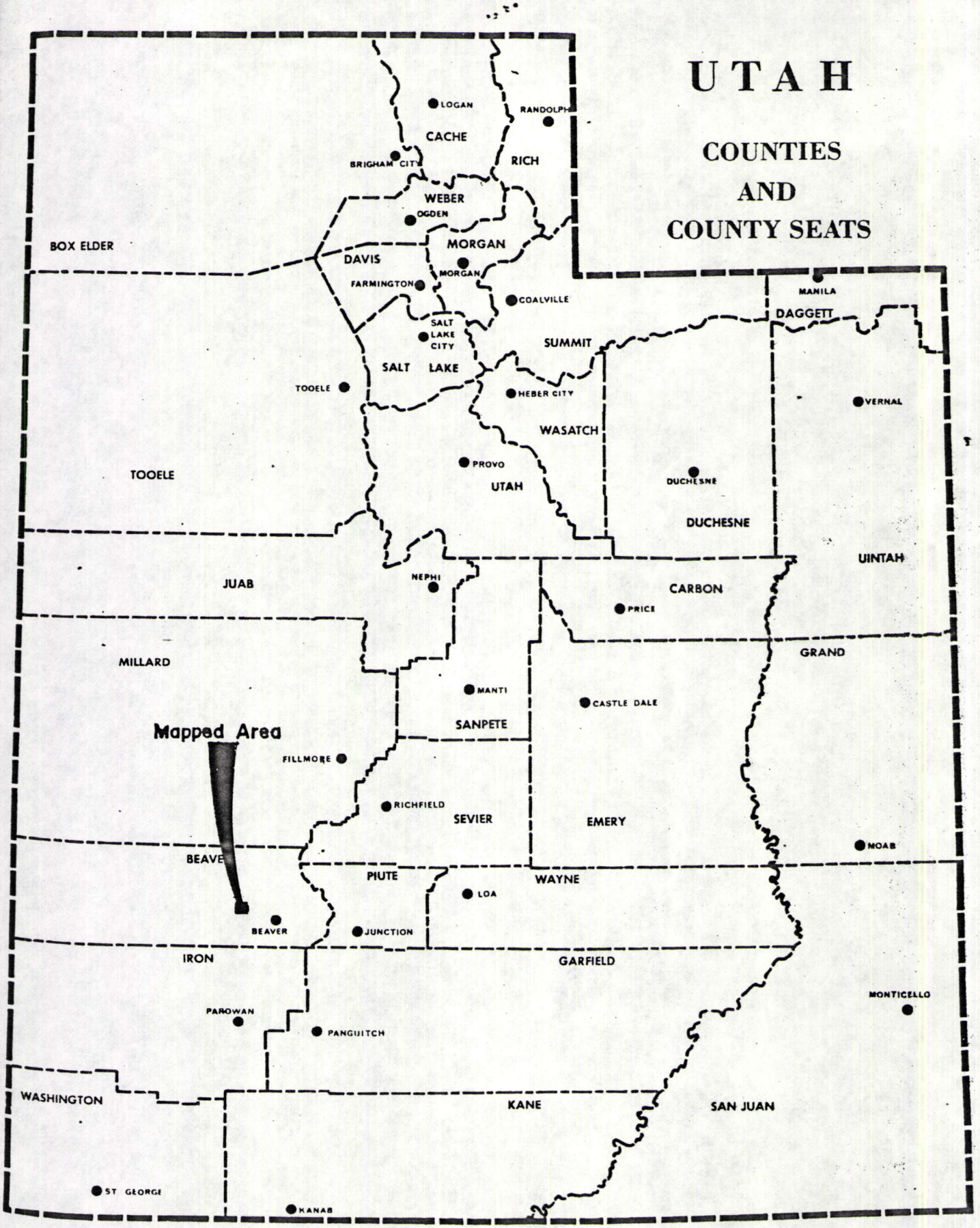
4. Roads of no vlaue to post mining land uses will be scarified, regraded with topsoil and revegetated.

5. Present plans are to abandon the tailings sediment pond in a manner that it can be used for animal watering. Should this become an unacceptable alternative at the time of final reclamation the dam will be recontoured and reclaimed in the same manner as the rest of the areas of surface disturbance.

Surety:

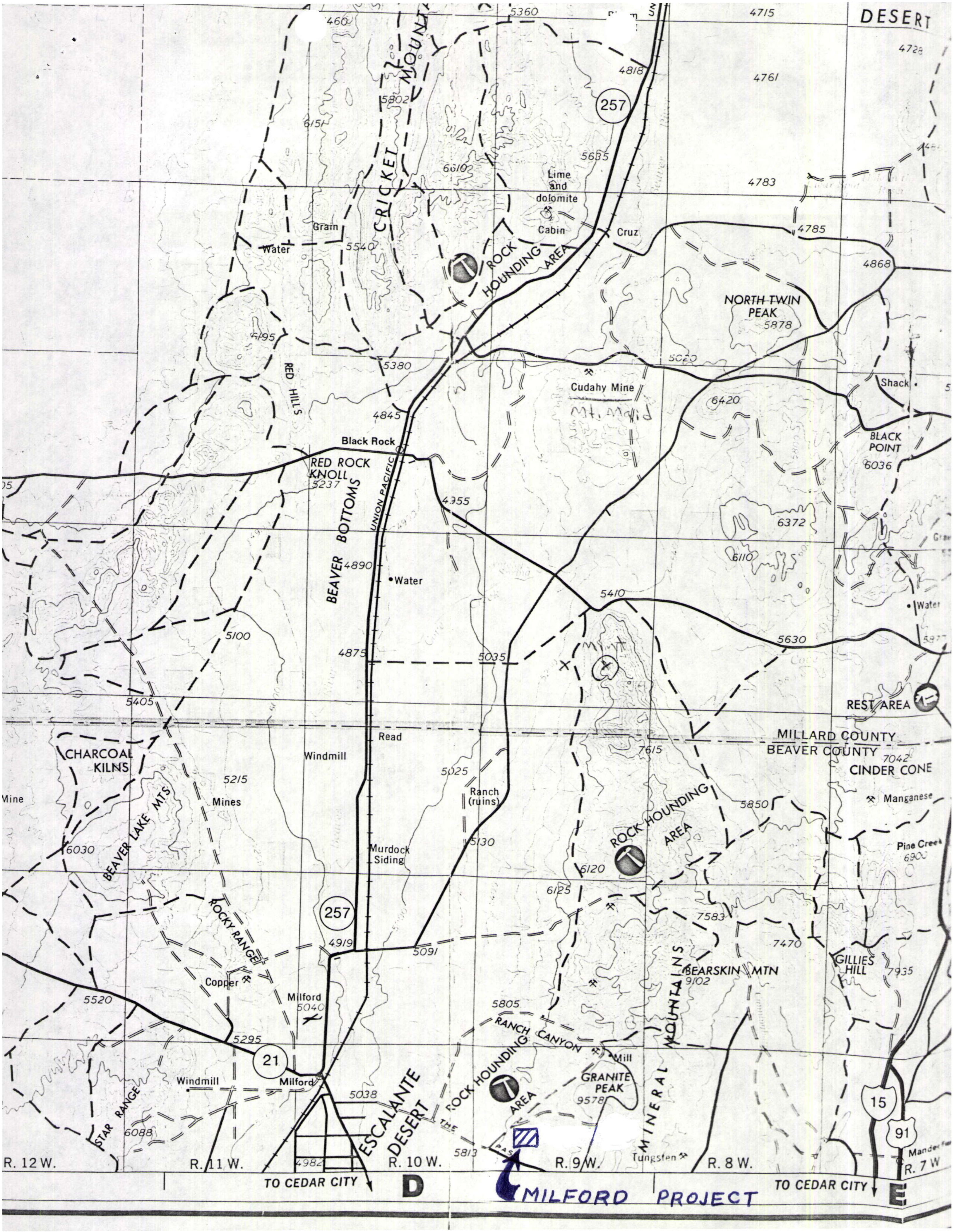
The form and amount of surety to be posted are presently being worked out with the applicant. A final figure will be available for presentation at the Board Meeting on March 24, 1983.

CY/lm



REGIONAL MAP - MILFORD PROJECT

MAP 1.0-1


DESERT
CRICKET MOUNT
257
Lime and dolomite
Cabin
Cruz
Grain
Water
ROCK HOUNDING AREA
NORTH TWIN PEAK
5878
RED HILLS
Cudahy Mine
Shack
Black Rock
RED ROCK KNOLL
5237
UNION PACIFIC
BEAVER BOTTOMS
BLACK POINT
6036
Water
REST AREA
Read
Windmill
MILLARD COUNTY
BEAVER COUNTY
CHARCOAL KILNS
CINDER CONE
7042
Manganese
Mine
Mines
Ranch (ruins)
BEAVER LAKE MTS
ROCK HOUNDING AREA
Pine Creek
6900
Murdock Siding
ROCKY RANGE
257
BEARSKIN MTN
9102
GILLIES HILL
Copper
Milford
5040
MINERAL MOUNTAINS
RANCH CANYON
Mill
21
Windmill
Milford
ROCK HOUNDING AREA
GRANITE PEAK
9578
STAR RANGE
ESCALANTE DESERT
THE PASS
Tungsten
15
91
R. 12 W.
R. 11 W.
R. 10 W.
R. 9 W.
R. 8 W.
R. 7 W
TO CEDAR CITY
D
MILFORD PROJECT
TO CEDAR CITY
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